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# Final Regulation Agency Background Document

Agency name	Virginia Waste Management Board
Virginia Administrative Code (VAC) citation	9 VAC 20 – 80 – 10 et seq.
Regulation title	Virginia Solid Waste Management Regulations
Action title	Amendment 5
Date this document prepared	November 6, 2007

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 36 (2006) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual.* 

# Brief summary

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also, please include a brief description of changes to the regulation from publication of the proposed regulation to the final regulation.

The Virginia Solid Waste Management Regulations, 9 VAC 20-80, establish standards and procedures for the siting, design, construction, operation, maintenance, closure, and post-closure care of solid waste facilities in the Commonwealth. It also establishes standards and procedures pertaining to the management of solid wastes. Proposed amendments to the existing regulation include: 1). clarification of the closure definition and procedure with particular reference to Code Section §10.1-1413.2 landfills; 2). address plans and actions related to the management of landfill gas and odors; 3). provide an option for facilities to apply for research, design, and development; 4). streamline public participation requirements by deleting automatic public hearings for certain permit or amendment issuance process; 5). broaden the definition of "airport" to include military airfields and to ensure consistent wording in sections concerning safety plans and permitting timeframes; and finally, 6). incorporation of citations referencing two new statutory provisions for: 1) landfill location that is protective with respect to water supplies and wetlands and 2) certification of permit application consistency with local government waste management plans.

Minor changes have been made since the publication of the proposed regulation. Please see the section below "Changes since the Proposed Stage" for all of the changes, which include changes in wording identified by commenters and other minor text changes.

## Statement of final agency action

Form: TH-03

Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.

On January 8, 2007, the Waste Management Board adopted posting of the draft proposed amendment of the Virginia Solid Waste Management Regulations for public comment.

## Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter numbers, if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The legal basis for the Virginia Solid Waste Management Regulations (9 VAC 20-80) is the Virginia Waste Management Act (Chapter 14 of the Code of Virginia). Specifically §10.1 1402 authorizes the Board to supervise and control waste management activities in the Commonwealth and to promulgate regulations necessary to carry out its powers and duties. The corresponding federal authority for the criteria for municipal solid waste landfills is found at 40 CFR Part 257 and 258. The federal authority for municipal solid waste landfills is mandatory and the state legal authority for all other types of facilities is also mandatory.

### Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons it is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

The amended regulation is needed to coordinate waste management practices with the statute amendments, other agencies and other programs, and to address issues and questions that have arisen since the regulations were last modified. The goal is to improve standards, make the regulations clear and enforceable and to protect human health and the environment.

Clarification of closure standards for old unlined landfills is needed to ensure that such landfills end operation in systematic order and in compliance with existing law. As housing development extends to the perimeter of previously remote old or active landfills, plans and early interaction notice is necessary to protect citizens from methane gas and odors. Replacement of an earlier program at the federal level with an optional new Research, Development, and Demonstration program inspired incorporation of that change into the Department's regulations.

#### Substance

Form: TH-03

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All changes made in this regulatory action" section.

New substantive provisions include closure related scheduling dates for those sanitary landfills that are subject to prioritization pursuant to § 10.1-1413.2, incorporation of new statutory provisions for conformance with regional solid waste plans and location of landfills in the vicinity of water supplies and wetlands, the addition of an action level for gas monitoring to give advance notice of elevated methane levels at landfills, the addition of a new section pertaining to odor management to address nuisance complaints from citizens, and finally a new section is added to allow applicants to apply for Research, Development and Demonstration plan permits subject to standards set forth in 40 CFR 258.4. Substantive changes to existing definitions, requirements or sections include the clarification of the definition of closure to more precisely specify the endpoint, clarification of the definition of airports to include military airports, time frames for review time, consistent safety plan requirements, streamlined public hearing procedures to reduce unnecessary public hearings and landfill cover maintenance once closure has occurred.

#### **Issues**

Please identify the issues associated with the proposed regulatory action, including:

- 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;
- 2) the primary advantages and disadvantages to the agency or the Commonwealth; and
- 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.

Primary advantages to the public include improved safety and reduced odor in the vicinity of landfills. Citizens can also be assured that compliance with the legally mandated closure schedule for old unlined landfills is ensured through improved wording and graphical illustration in the regulation. Primary advantages to the agency include streamlining of public hearing procedures to improve the efficiency of Department resources. For the industry, the Federal solid waste research, development, and demonstration regulatory standards are included to ensure that technological advances in Virginia proceed on par with those in neighboring states.

# Changes made since the proposed stage

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar's office, please put an asterisk next to any substantive changes.

Section number	Requirement at proposed stage	What has changed	Rationale for change
10	Definition of "closure"	Reworded to "unit" and "closure	Text has been revised
	includes "waste unit"	notification is performed by the	to address the
	and "the closure activities	department in accordance with 9	commenters' concern of

Requirement at proposed stage	What has changed	Rationale for change
are accepted by the Department of Environmental Quality (DEQ)."	VAC 20-80-250.E.6, 260.E.5, or 270.E.5."	unclear language. The term "unit" is included in the original definitions section. The existing notification process was cited.
Definition of "open burning" with subsections A, B, and C.	"A, B, and C" has been converted to numbers "1, 2, and 3."	Revision initiated by Virginia Register.
Definition of "remediation waste" was missing the word "Part" from the designation of Part "V".	The word "Part" was added.	Revision initiated by Virginia Register.
All facilities may continue to receive wasteuntil the closure date established pursuant to § 10.1-1413.2 of the Code of Virginia, in Tables 2.1 and 2.2.	Removed reference to Table 2.2.	The information in Table 2.1 has been deleted and replaced with the information from Table 2.2.
Enlargement or Closure	Reworded title as a condition: "Enlargement or closure of these facilities shall conform with the following subconditions:"	Rewording addresses concern raised by commenter for consistent structuring as required conditions on enlargement or closure of facilities.
dispose of solid waste in any portion of a disposal area that has received final cover or has not received waste for a period of one year, in accordance with 9 VAC 20-80-250.E. The facility shall notify the department, in writing, within 30 days, when an area has received final cover or has not received waste for a one-year period, in accordance with 9 VAC 20-80-250.E.  c. A facility may apply for a permit, and if approved, can construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance	Combined the two subsections, b and c into a new section "b." As such, "c" is recognized as an exception to the former "b" by adding the word "However" between the two former sections.	This rewording addresses concern raised by a commenter that two closure subconditions appeared contradictory for piggyback areas.
	are accepted by the Department of Environmental Quality (DEQ)."  Definition of "open burning" with subsections A, B, and C.  Definition of "remediation waste" was missing the word "Part" from the designation of Part "V".  All facilities may continue to receive wasteuntil the closure date established pursuant to § 10.1-1413.2 of the Code of Virginia, in Tables 2.1 and 2.2.  Enlargement or Closure  b. The facility shall not dispose of solid waste in any portion of a disposal area that has received final cover or has not received waste for a period of one year, in accordance with 9 VAC 20-80-250.E. The facility shall notify the department, in writing, within 30 days, when an area has received final cover or has not received waste for a one-year period, in accordance with 9 VAC 20-80-250.E.  c. A facility may apply for a permit, and if approved, can construct and operate a new cell that overlays ("piggybacks") over a	are accepted by the Department of Environmental Quality (DEQ)."  Definition of "open burning" with subsections A, B, and C. Definition of "remediation waste" was missing the word "Part" from the designation of Part "V".  All facilities may continue to receive waste until the closure date established pursuant to § 10.1-1413.2 of the Code of Virginia, in Tables 2.1 and 2.2.  Enlargement or Closure  Definition of adisposal area that has received final cover or has not received waste for a period of one year, in accordance with 9 VAC 20-80-250.E. The facility shall notify the department, in writing, within 30 days, when an area has received final cover or has not received waste for a period, in accordance with 9 VAC 20-80-250.E.  C. A facility may apply for a permit, and if approved, can construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate a new cell that overlays ("piggybacks") over a closed area in accordance with a construct and operate

Section number	Requirement at proposed stage	What has changed	Rationale for change
	20-80-250.		
60.B.3	Subsections c, d, and e.	Reordered into new subsections c and d to make way for the combination of former subsections b and c	Restructured outline to accommodate change in the number of subconditions.
60.B.3.e (new 60.B.3.d)	This map or plat shall be placed in the operating record and a copy shall be submitted to the department for its records.	This map or plat shall be placed in the operating record and a copy shall be submitted upon request to the department in order to track the progress of closure of these facilities. If the facility has already provided this information under 20-80-250, then the facility may refer to that information.	Text has been revised to address the commenter's concern on duplicative requirements for map submittals. The reason for the information is also given.
60.B.3 Tables 2.1 and 2.2	Originally introduced as two separate tables	Now consolidated into 1 table and all references to Table 2.2 throughout 60.B.3 have been removed.	Tables 2.1 and 2.2 were combined to eliminate unnecessary information.
60.B.3 Tables 2.1 and 2.2	Big Bethel Landfill	Bethel Landfill	Rewording addresses name change identified by commenter.
60.B.3 Tables 2.1 and 2.2	Permits 417 and 580 Footnote added to permits 417 and 580 and 580		Footnotes address the facility status information clarified by commenters.
280.C.1.b	indicate what has been done or is planned to be done to resolve the problem.	Changed "writing" to "a written statement" for clarification.	Text has been revised to address the commenter's concern on duplicative tasks. Clarifies that a written statement is required, not a gas remediation plan.
280.C.4	Virginia Operating Permit Program 9VAC5-80-40	Changed name and citation to: Virginia Permits for Stationary Sources Program 9VAC5-80.	Citation to revoked section of the air regulations updated to the correct section, on air permits for gas control systems.
280.D.1	to address odors that may impact citizens beyond the internal property boundaries.	Changed "internal property" to "facility" to address odors that may impact citizens beyond the facility boundaries.	Rewording addresses concern for consistent terminology raised by commenter on facility boundary for gas concerns.
485.A.7	i.A.7 the director will acknowledge their receipt within 30 calendar days the department sh within 30 calendar days.		Text has been revised to address the commenter's concern on the department's letter to a permit-by-rule facility. The existing language on

Section	Requirement at	What has changed	Rationale for change
<b>number</b> 485.D.1.b	Operating permitted sanitary landfills that have an exceedance in gas migration in accordance with 9 VAC 20-80-280 shall have a gas control system in place per 9	Reworded sentence to cite to section 280 B rather than the incorrect citation to section 280 E.	acknowledgement receipt is confusing and is replaced with a response. Rewording addresses typographical error.
485.D.2.e.(3)	VAC 20-80-280 E prior to the RDD plan submittal.  (3) Landfill gas collection and control in accordance with applicable Clean Air Act requirements (.i.e., Title V, NSPS or EG rule, etc.).  For RDD plans that include the addition of offsite non-hazardous waste liquids to the landfill, the following information shall be submitted with the RDD plan:	Revised the last part of former section 485.D.2.e.(3) as "e.(4)"  (4) For RDD plans that include the addition of off-site non-hazardous waste liquids to the landfill, the following information shall be submitted with the RDD plan:	To correct publication error.
485.D.3	Final reports shall be submitted 60 days prior to the end of the testing period in order for evaluation by the department.	"60 days" was changed to "90 days". Text was streamlined. DEQ review time of 90 days was added. Final reports shall be submitted 90 days prior to the end of the testing period for evaluation by the department. The department shall review this report within 90 days.	Text has been revised to address commenters' concern by adding a DEQ review time. Staff recommends 90 days to allow adequate review of these research projects. To coincide with this review timeframe, the 60 day submittal timeframe was changed to 90 days.
485. D. 3	Final reports shall be submitted [at least 60 90] days prior to the end of the testing period in order for evaluation by the department	Deleted the words "in order"	Deleted the words "in order" because they are unnecessary in the context of the sentence.
500.B.3	Permit and Permit-by-rule applicants shall comply with the statutory requirements for consistency with solid waste management plans as recorded in §§ 10.1-	The reference to subsections of 1408.1 have been deleted.	Text has been revised to address the commenter's concern. Statutory code section Q was deleted and R became Q over the course of this

Section number	Requirement at proposed stage	What has changed	Rationale for change
	1408.1 B 9, D 1, and R of the Code of Virginia.		amendment process. To avoid the necessity for future updates, the references to subsections of 1408.1 have been deleted.
500.E.7	A final decision to permit, to deny a permit or to amend the draft permit shall be rendered by the director	Removed the word "final".  A decision to permit, to deny a permit or to amend the draft permit shall be rendered by the director	To correct publication error.

# Public comment

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Commenter	Comment	Agency response
Richard M. Cheliras, Director of Waste-to- Energy, Southeastern Public Service Authority (SPSA)	SPSA's Regional Landfill (permit 417) in Table 2.2 needs to bear footnote 3 (a portion of this facility operated under HB 1205 and another portion is compliant with Subtitle D requirements).	The commenter's requested change has been incorporated into 60 B.3, Table 2.1.
Jennifer P. Johnson, Jeffrey M. Fantell, and Lawrence B. Bertolet  Joyce Engineering, Inc.	1. The definition for "closure" is vague. It is unclear what is meant by "accepted by the DEQ." If the intent of "acceptance" is that DEQ will write a notification letter acknowledging that closure activities are complete, such letters do not exist for many landfills closed prior to September 2007. We recommend that "accepted by the DEQ" be precisely defined and that formal acceptance be limited to landfills closed after the effective date of Amendment 5.	Text has been revised to address the commenter's concern on closure definition. The notification is not a new requirement in Amendment 5, so the existing requirement is cited.
	Section 60.B.3 and subsequent subsections are confusing and display formats inconsistent with the conditions presented in 60.B.1	Text has been revised as a condition in 60.B.3. to address the commenter's concern on enlargement or closure of facilities.

Commenter	Comment	Agency response
Commenter	and B.2. 60. B.3 is not formatted as a condition. Section B.3 and its subsections should be recast so they appear as requirements that are to be met for certain facilities to continue operations.	Agency response
	3. Sections 60.B.3.b and B.3.c appear contradictory. To clarify this discrepancy we suggest that "unless the provisions of Section B.3.c are satisfied" be added to B.3.b.	Text has been reformatted in 60.B.3.b to address the commenter's concern that two closure subconditions appeared contradictory for piggyback areas.
	4. Sections 280.C.1.b and C.2 contain similar language and seem to require that the same task be performed at two different times. Additionally, five business days is not adequate time to develop an appropriate course of action as required in C.1.b. We recommend that C.1.b be changed to remove the time limit (i.e. replace time limit with words: "indicate what has been done or is being considered to resolve the problem.")	4. Text has been revised to address commenter's concern on duplicative requirements for gas action plans. The first task is a written statement. The second task is a gas remediation plan.
	5. Section 485.A.7 increases DEQ's time to acknowledge receipt of a permit-by-rule application. It appears that the time has been extended so that DEQ has sufficient time to perform a completeness review. We recommend that the section be reworded to state that an acknowledgment or receipt and a completeness review are included in the new 30-day time frame.	5. Text has been revised to address the commenter's concern on the department's letter to a permit-by-rule facility.  The existing language on acknowledgement receipt is confusing and is replaced with a response.
	6. Section 500.B.3 includes an incorrect citation of the Code of Virginia. The "R" should be replaced with "Q."	6. Text has been revised to address the commenter's concern on section number. Statutory code section Q was deleted and R became Q over the course of this amendment process. To avoid the necessity for future updates, the references to subsections of 1408.1 have

Commenter	Comment	Agency response
Commenter	Comment	Agency response  been deleted.
		Deen deleted.
Jason Williams  Sr. Environmental Protection Manager  Waste Management, Inc.	1. The closure definition includes use of the term "waste unit," which is not defined in the Amendment. We are concerned that this will lead to confusion. In addition, we are concerned with the impact this closure definition may have on facilities that have been closed and may be in post-closure care since the mid 1990's. The definition requires that the closure be "accepted" by DEQ. Typically this is accomplished by a letter issued by the agency notifying the facility that closure has been successfully completed. However, a large number of sites completed closure construction during the mid 1990's before DEQ routinely issued such notification letters. Instead, closure was based on the date a Professional Engineer certified the facility as closed. Thus we are concerned that the majority of these sites closed in the mid 1990's would no longer be considered closed under the proposed definition.	The commenter is correct, and "waste" has been removed from the context as identified in the comment. "Unit," as used in the context of this closure definition, is included in the original definitions section.  Text has been revised to address the commenter's concern on DEQ acceptance. The notification is not a new requirement in Amendment 5, so the existing requirement is cited.
	2. Section 60.3.e requires submission of a map, plat, diagram, or other engineered drawing to designate areas in which waste will be disposed until the latest cessation of waste acceptance date. This information is currently required by the existing regulations (permitted and approved filling sequence and closure plan documentation). Thus, this proposed requirement appears duplicative and would result in the additional review of documents previously presented to DEQ.	2. Text has been revised to address the commenter's concern on duplicative submittal of map information in 60.3.e. If information has already been submitted, then the facility can use that information. Most of these facilities have not submitted this information. Also, the reason for the information is given, to allow the department to track the progress of these facilities.

9

Commenter	Comment	Agency response
	3. In Table 2.1, please change the name of permit 580 from "Big Bethel" to "Bethel" Landfill. In addition, the permit needs to bear footnote 3 (a portion of this facility operated under HB 1205 and another portion is compliant with Subtitle D requirements).	3. The commenter's requested name change and status have been incorporated into 60.B.3, Table 2.1 for Bethel Landfill.
	4. "Internal property boundaries" in section 280.D.1 should be replaced with "facility boundary" to be consistent with previously defined terms.	4. The commenter's requested change to facility boundary has been incorporated into 280.D.1.
	5. Section 485.D.2.d states that "renewals shall require department review and approval of reports of performance and progress on achievement of goals specified in the RDD plan." We request incorporation of a review time limit of "60 days" to be consistent with 485.D.3. Restriction of the review time under these circumstances will prevent extended periods of time wherein the research will cease pending approval of the renewal request. If DEQ cannot accommodate such a review period, the facility should be allowed to continue with the current RDD plan past the expiration date (pending review and approval) if there is no indication of "warning symptom" or "failure threshold" conditions.	5. Text has been revised to address commenters' concern by adding a DEQ review time to 485. D.3. Staff recommend 90 days to allow adequate review of these research projects. To coincide with this review timeframe, the 60 day submittal timeframe was changed to 90 days.

# All changes made in this regulatory action

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
10		Definition of "Airport"	Modified to include military airfield along with public-use airports. (Approved by Technical Advisory Committee, 9/25/06 notes, p. 1, posted in meeting minutes elsewhere on the Virginia Town Hall.)
10		Definition of "Closure"	Clarified to define, more precisely, the endpoint of closure. (Modeled on Technical Advisory Committee consensus, 9/25/06 notes, p. 2.) Revised further based on public comments.
10		Definition of "Open burning" contains sections A,B, and C.	"A, B, and C" has been converted to numbers "1, 2, and 3." The revision was initiated by the Virginia Register
10		Definition of "remediation waste" was missing the word "Part" from the designation of Part "V".	The word "Part" was added. The revision was initiated by the Virginia Register
60.B		Note: [referring to] § 10.1-1413.2 of the Code of Virginia	Removed this note to avoid redundancy with new Table 2.1.
60.B.3	60.B.3.a thru d and Table 2.1	untitled section with general specification that the landfills subject to Code section §10.1-1413.2 cannot be enlarged prematurely to avoid compliance	Title added, section subdivided into subconditions a through d, and a table (2.1) of affected facilities and closure-related scheduling information is added to clarify the limitations to enlargement or closure of those municipal solid waste landfills (sanitary landfills) that are subject to prioritization and a schedule for closure pursuant to §10.1-1413.2 of the Code of Virginia.
050.0.0		(0)	(Concept approved by Technical Advisory Committee, 9/25/06 notes, pp. 3 through 5.)
250.C.2.c		daily cover of 6 inches shall be placed upon all exposed solid waste before day's end.	Modified to "placed and maintained" to ensure that the protective cover is not to be diminished after the day's end.  (Approved by Technical Advisory Committee,
250.C.2.d		intermediate cover of at least 6 inches of additional soil shall be applied whenever an additional lift of refuse is not to be applied within 30 days.	9/25/06 notes, p. 6.)  Modified to "applied and maintained" to ensure that the additional protective cover is not to be diminished beyond the end of the 30 day period.  (Approved by Technical Advisory Committee, 9/25/06 notes, p. 6.)
250.C.2.e		Final cover construction will be initiated in accordance with E.1.b requirements.	Modified to "initiated and maintained" to ensure permanence of the protective cover.  (Approved by Technical Advisory Committee, 9/25/06 notes, p. 6.)

Current section number	Proposed new section number, if	Current requirement	Proposed change and rationale
260.C.4	applicable	Safety hazards to operating personnel shall be prevented through an active safety program.	For consistency with 250.C.5 modified to: "Safety hazards to operating personnel shall be prevented controlled through an active safety program consistent with the requirements of 29 CFR Part 1910."
270.C.3		Safety hazards to operating personnel shall be prevented through an active safety program	For consistency with 250.C.5 modified to: "Safety hazards to operating personnel shall be prevented controlled through an active safety program consistent with the requirements of 29 CFR Part 1910."
280 heading material		Venting and control of decomposition gases shall be implemented where required.	Modified to: Venting and control of decomposition gases shall be implemented for all sanitary landfills under 9 VAC 20-80-250B and other landfills where required.
			Such venting is only routinely required at sanitary landfills, but it needed clarification that venting could be required for other landfill types on a case-by-case basis (for Technical Advisory Committee's approval of gas section in general, see 9/25/06 notes, p. 10)
280 heading material		required under 9 VAC 20-80-250.B.8.	Struck out 9 VAC 20-80-250 B 8, which was an incorrect citation.
280.A.2		written authorization to discontinue by the department	Modified to: "written authorization by the department to discontinue".  (To improve grammar and clarity; for
			Technical Advisory Committee's approval of gas section in general, see 9/25/06 notes, p. 10)
280.A.4		based upon the results of monitoring data collected.	Modified to: "based upon the results of collected monitoring data."
			(To improve grammar and clarity; for Technical Advisory Committee's approval of gas section in general, see 9/25/06 notes, p. 10)
280.B		Monitoring. To ensure that the conditions of this section are met,	Modified to: "Gas Monitoring. Subject to the preconditions in 9 VAC 20-80-250B, 9 VAC 20-80-260 B.9, and 9 VAC 20-80-270 B.18,"
			(To distinguish gas from groundwater monitoring, and to clarify the applicable conditions by direct citations; for Technical Advisory Committee's approval of gas section in general, see 9/25/06 notes, p. 10)
280.C.1 & 2	280.B.4	C. Monitoring frequency. 1. As a minimum, quarterly monitoring is required.	Replaced by: "B.4. At a minimum, the gas monitoring frequency shall be quarterly. The department may require more frequent

Current	Droposod	Current requirement	Proposed change and rationale
section number	Proposed new section number, if applicable	Current requirement	
		2. More frequent monitoring may be required by the department at those locations where results of monitoring indicate that	monitoring at locations where monitoring results indicate gas migration or gas accumulation in devices or structures designed to detect migrating gas."
		decomposition gas migration is occurring or is accumulating in structures to detect migrating gas and ensure compliance with subsection A of this section.	(To consolidate and clarify the conditions under which the department would require monitoring actions above the minimum standards, as approved by the Technical Advisory Committee, (for Committee's approval of gas section in general, see 9/25/06 notes, p. 10).)
280.C.4		Virginia Operating Permit Program 9VAC5-80-40	Changed to: Virginia Permits for Stationary Sources Program 9VAC5-80. Citation to revoked section of the air regulations updated to the correct section, on air permits for gas control systems.
	280.D.1 thru 3	No section on odor exists in the current regulation	Added the following section to the regulation: D. Odor Management 1. When an odor nuisance or hazard is created under normal operating conditions and upon notification from the department, the permittee shall, within 90 days, develop and implement an odor management plan to address odors that may impact citizens beyond the internal property boundaries. The permittee shall place the plan in the operating record and a copy shall be submitted to the department for its records.  Odor management plans developed in accordance with the Virginia Operating Permit Program 9VAC5-80-40 or other state air pollution control regulations will suffice for the provisions of this section (D).  2. The plan shall identify a contact at the facility that citizens can notify about odor concerns.  3. Facilities shall perform and document an annual review and update the odor management plan, as necessary, to address ongoing odor management issues.  (This odor section was added, with the approval of the Technical Advisory Committee, 9/25/06 notes, p. 10, to address concerns that had been raised by citizens across the State who live in the vicinity of landfills).
280.D heading material	280.D heading material	D. Recordkeeping. The owner or operator shall keep the records of the results of gas monitoring	Modified to: "E. Recordkeeping. The owner or operator shall keep the records of the results of gas monitoring and any gas remediation issues, throughout the active

Current	Proposed	Current requirement	Proposed change and rationale
section number	new section number, if applicable		
		throughout the active life.	life."
			(To reflect the need to collect gas remediation issue records as well as gas monitoring records; see Technical Advisory Committee's approval of section in general, 9/25/06 notes, p. 10.)
280.D heading material	280.D heading material	The monitoring records shall include:	Removed the word "monitoring," because not all the records listed consist solely of monitoring data (see Technical Advisory Committee's approval of section in general, 9/25/06 notes, p. 10).
280.D	280.E.5		New section added: "E.5. Monitoring and design records for any gas remediation or control system."
			This section was added with the approval of the Technical Advisory Committee, to specifically address the collection of remediation records (see Technical Advisory Committee's approval of section in general, 9/25/06 notes, p. 10).
280.E	280.C.1.a & b	No prior section on action levels in 280.E; only compliance levels were addressed in old 280.E	New section on action levels was added with the approval of the Technical Advisory Committee (see approval of section in general, 9/25/06 notes, p. 10) to ensure rapid response to conditions in advance of the attainment of compliance levels and notification to the department. The action levels, if not addressed, could eventually impact human health and the environment: "C. Gas Remediation.
			1. When the gas monitoring results indicate concentrations of methane in excess of the action levels, 25% of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components) or 80% of the lower explosive limit for methane at the facility boundary, the operator shall:  a. Take all immediate steps necessary to protect public health and safety including those required by the contingency plan.
			b. Notify the department in a written statement, within five working days of learning that action levels have been exceeded, and briefly indicate what has been done or is planned to be done to resolve the problem."
280.E.1.a thru c	280.C.2	E. Control.  1. When the results of gas	Modified to: "C. Gas Remediation When the gas monitoring results indicate

Current	Proposed	Current requirement	Proposed change and rationale
section	new section	Current requirement	Froposed change and rationale
number	number, if		
	applicable	and the state of the Parada	
	аррисавіе	monitoring indicate concentrations of methane in excess of the compliance levels required by subdivision A 1 of this subsection, the operator shall:  a. Take all immediate steps necessary to protect public health and safety including those required by the contingency plan.  b. Notify the department in writing within five working days of learning that compliance levels have been exceeded, and indicate what has been done or is planned to be done to resolve the problem.  c. Within 60 days of detection, implement a remediation plan for the methane gas releases and submit it to the department for approval and amendment of the facility permit. The plan shall describe the nature and extent of the problem and	concentrations of methane in excess of the compliance levels, 25% of the LEL for methane in facility structures (excluding gas control or recovery system components) or the lower explosive limit for methane at the facility boundary, the operator shall, within 60 days of detection, implement a gas remediation plan for the methane gas releases and submit it to the department for amendment of the facility permit. The plan shall describe the nature and extent of the gas migration and the proposed remedy. The plan shall include an implementation schedule specifying timeframes for implementing corrective actions, evaluating the effectiveness of such corrective actions and milestones for proceeding in implementation of additional corrective actions, if necessary to reestablish compliance."  (This section was modified, with the approval of the Technical Advisory Committee, 9/25/06 notes, p. 8, to provide better specification of the details and the scheduling in a gas remediation plan to address exceeded gas compliance levels. The old wording was not sufficiently cognizant of the fact that remediation activities go beyond simple control of gas flow. Gas remediation involves the identification of causes and a
		the proposed remedy.	remedy for high gas levels. The wording here is intended to clarify such differences, of what details the plan should consist, and when it should be scheduled and initiated)
280.E.2.a thru c	280.C.3. a thru c	2. A gas control system shall be designed to: a. Prevent methane accumulation in on-site structures. b. Reduce methane concentrations at monitored property boundaries to below compliance levels in the timeframes specified in the gas remediation plan. c. Provide for the collection and treatment and/or disposal of decomposition gas condensate produced at the surface. Condensate	Modified to: "3. A gas remediation system shall:  a. Prevent methane accumulation in on-site structures.  b. Reduce methane concentrations migrating beyond the monitored property boundaries to below compliance levels in the timeframes specified in the gas remediation plan.  c. Provide for the collection and treatment and/or disposal of decomposition gas condensate produced at the surface.  Condensate generated from gas control systems may be recirculated into the landfill provided the facility complies with the liner and leachate control systems requirements of this part. Condensate collected in

Current	Proposed	Current requirement	Proposed change and rationale
section number	new section number, if applicable		
		generated from gas control systems may be recirculated into the landfill provided the facility complies with the liner and leachate control systems requirements of this part. Condensate collected in condensate traps and drained by gravity into the waste mass will not be considered recirculation.	condensate traps and drained by gravity into the waste mass will not be considered recirculation."  (This section was modified, with the approval of the Technical Advisory Committee (see Committee's approval of section in general, 9/25/06 notes, p. 10), to provide better specification of the details and the scheduling in a gas remediation plan to address exceeded gas compliance levels. The old wording was not sufficiently cognizant of the fact that remediation activities go beyond simple control of gas flow. Gas remediation involves the identification of causes and a remedy for high gas levels. The wording here is intended to clarify such differences, of what details the plan should consist, and when it should be scheduled and initiated)
280.E.3	280.C.4	3. Extensive systems to control emissions of nonmethane organic compounds may be required under the Clean Air Act (40 CFR 60.33c and 40 CFR 60.750) and 9 VAC 5-40-5800. Facilities that are required to construct and operate systems designed to comply with those regulations will be considered to be in compliance with the requirements of subdivisions 2 a and b of this subsection. Gas control systems also may be subject to the Virginia Operating Permit Program 9 VAC 5-80-40 or other state air pollution control regulations.	The wording of this section was not changed (except as noted below). The location in the structure of the regulation was changed (from E.3 to C.4) and the internal citation to E.2 a and b was updated to C.3 a and b: "4. Extensive systems to remediate emissions of non-methane organic compounds may be required under the Clean Air Act (40 CFR 60.33c and 40 CFR 60.750) and 9 VAC 5-40-5800. Facilities that are required to construct and operate systems designed to comply with those regulations will be considered to be in compliance with the requirements of subdivisions 3 a and b of this subsection, unless monitoring data continues to indicate an exceedance of compliance levels. Gas control systems also may be subject to the Virginia Operating Permit Program 9 VAC 5-80-40 or other state air pollution control regulations."  (Structure of the gas section approved by Technical Advisory Committee, subject to the specific revisions indicated in 280 9/25/06 notes, p. 6.)
280.E	280.C.5	No prior section on this topic in 280.E.	Wording added: "5. The facility shall notify the department of an initial exceedance of the compliance level or unusual condition which may endanger human health and the environment, in accordance with 9 VAC 20-80-570.C.3, such as when an active gas remediation system is no longer operating in

Current	Proposed	Current requirement	Proposed change and rationale
section number	new section number, if applicable	3333 <b>q</b> anomon	
			such a manner as to maintain compliance with this section."
			(This wording was added, with the approval of the Technical Advisory Committee, (9/25/06 notes, p. 9.) to maintain similar reporting requirements stated elsewhere in 9 VAC 20-80 for compliance exceedances and unusual conditions.)
485.A.7		Upon receiving the certifications and other required documents, including the results of the public meeting and the applicant's response to the comments received, the	Upon receiving the certifications and other required documents, including the results of the public meeting and the applicant's response to the comments received, the department shall respond within 30 calendar days.
		director will acknowledge their receipt within 10 working days.	Review time changed to "30 days" to reflect the department's processing time requirements for permit-by-rule facilities, but includes weekends and holidays in the time period. (Approved by Technical Advisory Committee, 9/25/06 notes, p. 10.)
			Also, deleted "acknowledge their receipt" to address commenter's concern of confusing language in the existing regulation.
485	485.D	No prior section on this topic in 485	A new section concerning an optional program for a Research, Development, and Demonstration Plan for a landfill, which is now offered by USEPA, subject to standards set forth in accordance with 40 CFR 258.4.
			(A consensus of the Technical Advisory Committee voted its support for including a Research, Development, and Demonstration Plan section in the revised regulation, 9/25/06 notes, p. 15)
500.B.3		There was no prior citation to statutory provision for plan consistency.	To the end of this section is appended: "Permit and Permit-by-rule applicants shall comply with the statutory requirements for consistency with solid waste management plans as recorded in §§ 10.1-1408.1 of the Code of Virginia." This citation is included in 500.B.3 as the most appropriate location to indicate the new statutory requirement passed in the 2006 legislative session. (Approved by Technical Advisory Committee, 9/25/06 notes, p. 11.)
500.C.2		The Part A application will be reviewed for	Changes to this section, as approved by the Technical Advisory Committee, are

Current section	Proposed new section	Current requirement	Proposed change and rationale
number	number, if applicable		
		completeness. The applicant will be notified within fifteen days whether the application is administratively complete or incomplete. If complete information is not provided within thirty days after the applicant is notified, the application will be returned to the applicant without further review.	underlined (below). The changes are to more accurately reflect the Department's processing time requirements along with the Committee's concern that applicant's not face a second assessment for timely application resubmittals (sent within 18 months).  "The applicant will be notified within 30 days whether the application is administratively complete or incomplete. If complete information is not provided within 60 days after the applicant is notified, or an alternate timeframe approved by the department, the application will be returned to the applicant without further review. Subsequent resubmittals of the application, submitted after eighteen months from the date of the department's response letter, shall be considered as a new application."
500.E.2		A notice of the availability of the proposed draft permit shall be made in a newspaper with general circulation in the area where the facility is to be located. A copy of the notice of availability will be provided to the chief administrative officer of all cities and counties that are contiguous to the host community.	(Approved by Technical Advisory Committee, 9/25/06 notes, p. 11.)  The original language was modified (as below) to clarify the public notification process: "Copies of the draft permit will be available for viewing at the applicant's place of business or at the regional office of the department, or both, upon request. A notice of the availability of the proposed draft permit shall be made in a newspaper with general circulation in the area where of the facility is to be located. A copy of the notice of availability will be provided to the chief administrative officer of all cities and counties that are contiguous to the host community."
500.E.2	new 500.E.3 through E.6	A public hearing will be scheduled and the notice shall be published at least 30 days in advance of the public hearing on the draft permit. Copies of the proposed draft permit will be available for viewing at the applicant's place of business or at the regional office of the department, or both, upon request in advance of the public	9/25/06 notes, p. 11.)  These words have been removed from this section and reworked into new sections 500.E.3 through 6 (elsewhere, below in this table) to indicate both the circumstances in which a public hearing is required and when a public hearing is optional.  (Approved by Technical Advisory Committee, 9/25/06 notes, p. 11.)

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
	•	hearing.	
500.E.3	new 500.E.6	3. The department shall hold the announced-public hearing 30 days or more after the notice is published in the local newspaper. The public hearing shall be conducted by the department within the local government jurisdiction where the facility is to be located. A comment period shall extend for a 15-day period after the conclusion of the public hearing.	This section has been modified to reflect that a public hearing is optional in some circumstances (as indicated in new 500.E.3 through 500.E.5) other language has been clarified to provide consistency with wording changes elsewhere in 500.E.:  "6. If a public hearing is to be held, The the department shall hold-convene it the announced public hearing 30 days or more after the notice is published in the local newspaper. The public hearing shall be conducted by the department within the local government jurisdiction where of the facility is to be located. A comment period shall extend for a 15-day period after the conclusion of the public hearing."
			(Approved by Technical Advisory Committee,
500.E.4 through 7	new 500.E.7 through 10		9/25/06 notes, p. 11.)  No changes (other than for E.4see the next line of this table) have been made to the wording of these sections. They have been renumbered as sections 7 through 10 in the reorganization of 500.E.  (Approved by Technical Advisory Committee,
500.E.4	500.E.7	A final decision to permit, to deny a permit or to amend the draft permit shall be rendered by the director within 30 days of the close of the hearing comment period.	9/25/06 notes, p. 11.)  The word "final" has been removed, as approved by the Technical Advisory Committee, 9/25/06 notes, p. 11, because this is not a final decision. It remains subject to the internal departmental appeals process.
500.E	new 500.E.3 through E.5		The three new sections, below, have been added to indicate both the circumstances in which a public hearing is required and when a public hearing is optional:  "3. If the application is for a new landfill or an increase in landfill capacity, then the department shall hold a public hearing and the notice above will include such information.  4. For any application (other than 3 above), the notice will include the opportunity to request a public hearing. The department shall hold a public hearing on the draft permit whenever the department finds, on the basis of requests, that:

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
			a. there is a significant public interest in the issuance, denial, modification or revocation of the permit in question; b. there are substantial, disputed issues relevant to the issuance, denial, modification or revocation of the permit in question; and c. the action requested is not, on its face, inconsistent with, or in violation of, these regulations, the Waste Management Act, or federal law or regulations. 5. The department also may hold a public hearing when it is believed that such a hearing might clarify one or more issues involved in a permit decision."  (Approved by Technical Advisory Committee, 9/25/06 notes, p. 11.)
510.H.1		There was no prior citation to statutory provision for plan consistency.	To the end of this section is appended: "This report shall comply with the statutory requirements for siting landfills in the vicinity of public water supplies or wetlands as recorded in §§ 10.1-1408.4 and 10.1-1408.5 of the Code of Virginia."  This citation is included in 510.H.1 as the most appropriate location to indicate the new statutory requirement. (Approved by Technical Advisory Committee, 9/25/06 notes, p. 11.)

# Regulatory flexibility analysis

Form: TH-03

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

The technical advisory committee discussed the burden of reporting, compliance, and scheduling concepts and the agency used this advice in writing the proposal. In many cases, the only alternative appears to be one of no action; however, the agency requested that the public review the proposal, to suggest alternatives for evaluation by the agency and to explain any costs and difficulties the public believed would arise from the final regulations.

Performance standards were discussed as they relate to landfill gas. However, landfills and units have no product streams and monitoring is normally only effective to alert one to the failure of the unit.

Changes proposed in public comments and any proposed resolution of those changes are described in comment sections above. None of the changes incorporated since the proposed stage resulted in a change in the regulatory flexibility analysis described here.

## Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

No impact on the institution of the family and family stability is anticipated with this amendment.